Application No. 10/656,828   5   Docket No.: S1459.70060US00
Amendment dated
Reply to Office Action of June 19, 2007

REMARKS

In response to the Office Action mailed June 19, 2007, Applicant respectfully requests reconsideration. To further the prosecution of this application, each of the rejections set forth in the Office Action has been carefully considered and is addressed below. The claims as presented are believed to be in condition for allowance.

Claims 1-8 were previously pending in this application. No claims are amended, added, or cancelled. As a result, claims 1-8 remain pending for examination, with claims 1, 6, 7 and 8 being independent. No new matter has been added.

Telephone Interview With Examiner

Applicant's representatives thank Examiner Philippe for the courtesies extended in granting and conducting a telephone interview on September 11, 2007. The substance of the interview is summarized herein.

During the interview, Applicant's representatives provided an overview of one embodiment of the invention which relates to image processing, and more particularly to the creation of a stereoscopic image (i.e., a two-dimensional image which is perceived three-dimensionally) which includes an image for viewing by the left eye and an image for viewing by the right eye (see Applicant's specification at, for example, p.1, lines 17-22).

By way of background, Applicant's representatives explained that in order to produce this type of stereoscopic image, an "image pair" including an image for the left eye ("an L image") and an image for the right eye ("an R image") must be obtained (p.4, lines 19-21). One conventional technique for obtaining an image pair comprising L and R images in a single camera shot involves the use of an optical adapter, one example of which is depicted in FIG. 2 (p.5, lines 10-11). The optical adapter 11 includes mirrors 21, 22 which reflect an image intended for viewing by the right eye toward a lens 3, and allows an image for the left eye to pass through to lens 3 unobstructed (p.5, lines 21-27). An image which results from this technique, known as a "parallax" image, includes a first region for viewing by the left eye and another region for viewing by the right eye (p.5, lines 28-

31). One example of a parallax image is depicted in FIG. 3 (p.5, lines 31-32). In the example shown in FIG. 3, the region for the right eye is used as an R image and the region for the left eye is used as an L image (p.5, line 32 – p.6, line 1).

Applicant's representatives also pointed out that viewing stereoscopic images which include L and R images involve the user viewing the L image with the left eye and the R image with the right eye. A technique for viewing a stereoscopic image which includes L and R images is shown in FIG. 9 (p.16, lines 6-11). In FIG. 9, a stereoscopic image 57 includes alternating lines in which the L and R images are represented, and is viewed through filter glasses 41 and polarizing plate 43 (p.16, lines 6-13). As a result of the depicted arrangement, the user's left eye sees the L image and right eye sees the R image, so that overall she perceives the image three-dimensionally (p.16, lines 13-19).

It was further explained that while the parallax method is a useful technique for generating a stereoscopic image which includes L and R images, Applicant has appreciated that it would be convenient to be able to use images taken using an ordinary, non-parallax method as an image pair, rather than being forced to take a parallax image using a camera mounted with an optical adapter (p.6, lines 11-17).

The discussion then turned to the ways in which each of independent claims 1, 6, 7 and 8 distinguish over the prior art of record, which is summarized below.

Claim Rejections Under 35 U.S.C. §102

Claims 1-8 are rejected under 35 U.S.C. §102(b) as purportedly being anticipated by U.S. Patent No. 5,510,831 to Mayhew ("Mayhew"). Applicant respectfully traverses this rejection, as Mayhew fails to satisfy all of the limitations recited by the independent claims.

Application No. 10/656,828   7   Docket No.: S1459.70060US00
Amendment dated
Reply to Office Action of June 19, 2007

A.   <u>Claims 1-5</u>

Claim 1 recites an image processing apparatus comprising: first detecting means for detecting image pairs each taken in a continuous shooting mode among a plurality of images; second detecting means for detecting image pairs each taken consecutively within a predetermined time among the plurality of images; presenting means for presenting, to a user, said image pairs detected by at least one of said first detecting means or said second detecting means; and generating means for setting one of two images comprising a selected image pair selected by the user among said image pairs presented by said presenting means as an image for the left eye and the other one of two images as an image for the right eye, and generating image data for displaying a stereoscopic image.

During the interview, Applicant's representatives explained that Mayhew fails to satisfy several of the limitations recited by claim 1. For example, Mayhew fails to disclose or suggest (1) means for detecting, among a plurality of images, image pairs each taken consecutively within a predetermined time; and (2) means for setting one of two images as an image for the left eye and an other one of two images as an image for the right eye. In this respect, it was explained that Mayhew differs fundamentally from the apparatus of claim 1, as Mayhew describes a technique for producing stereoscopic images which are perceived as three-dimensional with the unaided eye (col. 2, lines 28-33), and thus has no need to set one image as an image for the left eye and another as an image for the right eye. In addition, Mayhew discloses that the image frames which are used to create a composite image are taken concurrently (col. 3, lines 53-57), so that Mayhew has no reason to detect image pairs taken consecutively within a predetermined time.

Mayhew discloses a technique for creating stereoscopic images which includes acquiring first and second image frames from at least two different points of view, and creating an frame-by-frame composite of the two perspectives that includes a portion of an image captured from a first perspective transposed on to a corresponding image captured from the second perspective (Abstract). Specifically, Mayhew discloses that a pair of orthogonally oriented cameras 1 and 3 (Fig. 1) concurrently acquire separate images of a scene, and that these images are recorded as synchronized successions of image frames in recorders 1a and 3a (col. 3, lines 53-57). The recorded

Application No. 10/656,828   8   Docket No.: S1459.70060US00
Amendment dated
Reply to Office Action of June 19, 2007

image frames are fed in parallel to a video effects device, which digitizes and manipulates the scene images (col. 4, lines 8-16). In particular, video switcher 15 (Fig. 2) extracts a portion of each image frame acquired by one of the cameras (e.g. camera 3), and transposes this portion on to a corresponding portion of an image frame shot by the other camera (e.g., camera 1)(col. 4, lines 43-49). The result is a series of composite image frames that include an image portion from each camera (col. 4, lines 49-55).

The result of this processing is illustrated by the eight consecutive composite image frames shown in Figs. 3(a)-3(h). Specifically, in each of frames 1-8 the letter A indicates a portion of an image frame acquired by camera 1, and letter B represents a portion of a corresponding image acquired by camera 3 which is transposed by video switcher 15 on to the image captured by camera 1 (col. 4, lines 59-63). The position of partial image B in the overall image frame is shifted from frame to frame, such that partial image B progresses or scans through the images A diagonally from upper left to lower right and back to upper left of the composite image frames (col. 5, lines 1-8).

Mayhew fails to satisfy the limitations of claim 1 for at least two reasons. First, Mayhew does not disclose or suggest a detecting, among a plurality of images, image pairs *that are each taken consecutively within a predetermined time*, as required by claim 1. As discussed above, Mayhew discloses that separate images of a scene are acquired concurrently by cameras 1 and 3.

Mayhew also does not disclose or suggest *setting one of the two images as an image for the left eye and the other one of the two images as an image for the right eye*, as required by claim 1. As discussed above, Mayhew discloses generating a single composite image intended to be viewed with both eyes. Mayhew says nothing at all relating to setting one image as an image for the left eye, and another image as an image for the right eye.

For each of the foregoing reasons, claim 1 patentably distinguishes over Mayhew, such that the rejection of claim 1 under 35 U.S.C. §102(b) as purportedly being anticipated by Mayhew should be withdrawn.

Claims 2-5 depend from claim 1 and are allowable for at least the same reasons.

B. Claim 6

Claim 6 recites an image processing method comprising, *inter alia*, a second detecting step for detecting image pairs each taken consecutively within a predetermined time among a plurality of images; and a generating step for setting one of two images as an image for the left eye and the other of two images as an image for the right eye. It should be appreciated from the discussion above relating to claim 1 that Mayhew fails to disclose or suggest an image processing method comprising either the second detecting step or the generating step. As a result, claim 6 patentably distinguishes over Mayhew, such that the rejection of claim 6 under 35 U.S.C. §102(b) as purportedly being anticipated by Mayhew should be withdrawn.

C. Claim 7

Claim 7 recites a computer readable medium on which is recorded a computer executable program which, when executed, performs a method comprising, *inter alia*, the second detecting step and generating step discussed above with reference to claim 6. It should be appreciated from the discussion above that Mayhew fails to satisfy these limitations of claim 7. As a result, claim 7 patentably distinguishes over Mayhew, such that the rejection of claim 7 under 35 U.S.C. §102(b) as purportedly being anticipated by Mayhew should be withdrawn.

D. Claim 8

Claim 8 recites a computer readable medium on which is recorded a computer executable program which, when executed, performs a method comprising, *inter alia*, the second detecting step and generating step discussed above with reference to claim 6. It should be appreciated from the discussion above that Mayhew fails to satisfy these limitations of claim 8. Accordingly, claim 8 patentably distinguishes over Mayhew, such that the rejection of claim 8 under 35 U.S.C. §102(b) as purportedly being anticipated by Mayhew should be withdrawn.
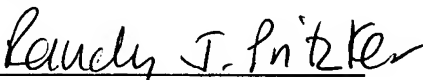
Application No. 10/656,828   10   Docket No.: S1459.70060US00
Amendment dated
Reply to Office Action of June 19, 2007

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: 9-18-07

Respectfully submitted,

Randy J. Pritzker
Registration No.: 35,986
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
(617) 646-8000

1235576.1